

**WHAT IS CLAIMED IS:**

1. A stereoscopic image processing method for extracting a plurality of dots serving as a pixel unit from a plurality of viewpoint images by each viewpoint image, wherein

5           data of a plurality of dots serving as a pixel unit is extracted from each viewpoint image, an aggregate of such the data is defined as a pixel group, and an arrangement of pixel units in said pixel group is set so that an aspect ratio of a displayed pitch of said pixel group on a screen of a stereoscopic image display is rendered most approximate to 1:1.

10           2. A stereoscopic image processing method for extracting a plurality of dots serving as a pixel unit from a plurality of viewpoint images by each viewpoint image, wherein

            data of a plurality of dots serving as a pixel unit is extracted from each viewpoint image, an aggregate of such the data is defined as a pixel  
15   group, and an arrangement of pixel units in said pixel group is set so that an aspect ratio of a displayed pitch of said pixel group on a screen of a stereoscopic image display is rendered within a range from 1:2 to 2:1.

            3. A stereoscopic image processing method according to claim 1 or claim 2, wherein the data of a plurality of dots serving as a pixel unit, which  
20   is extracted from each viewpoint image, is obliquely arranged on a bit map.

            4. A stereoscopic image processing method according to claim 1 or claim 2, wherein the data of a plurality of dots serving as a pixel unit, which is extracted from each viewpoint image, is supplied so as to be obliquely aligned on a screen of the stereoscopic image display.

25           5. A stereoscopic image processing method according to claim 1 or claim 2, wherein a video signal is created and supplied so that the data of a

plurality of dots serving as a pixel unit, which is extracted from each viewpoint image, is obliquely aligned on a screen of the stereoscopic image display.

6. A stereoscopic image processing method according to any one of  
5 claims 1 to 5, wherein the number of displayed pixels is horizontal  $M \times$   
vertical  $N$ , the number of viewpoints is  $L$ , the number of dots constituting one  
pixel is  $k$ , the number of pixels of each viewpoint image is horizontal  $kM/L \times$   
vertical  $N/k$ , and data of necessary dots is extracted from each viewpoint  
image by each corresponding image area in each viewpoint image.

10 7. A stereoscopic image processing method according to claim 6,  
wherein the number of pixels of each viewpoint image is horizontal  $kM/L \times$   
vertical  $N/k$ , and an image obtained in an image obtaining system is  
processed so that an aspect ratio of an image is coincident with an aspect  
ratio of a displayed image and each viewpoint image is obtained.

15 8. A stereoscopic image processing method according to claim 6,  
wherein an aspect ratio of an image of an image obtaining system is rendered  
coincident with an aspect ratio of a displayed image, and each viewpoint  
image is obtained.

20 9. A stereoscopic image processing method according to any one of  
claims 1 to 5, wherein the number of displayed pixels is horizontal  $M \times$   
vertical  $N$ , the number of viewpoints is  $L$ , the number of dots constituting one  
pixel is  $k$ , the number of pixels of each viewpoint image is horizontal  $kM/L \times$   
vertical  $N/k$ , each obtained viewpoint is applied to a magnifying process so as  
to become horizontal  $M \times$  vertical  $N$ , and data of necessary dots is extracted  
25 and generated from each viewpoint image by each corresponding image area  
in each viewpoint image.

10. A stereoscopic image processing method according to any one of claims 6 to 9, wherein each viewpoint image is rendered large by adding by one to several dots on both sides, and the data extracted from said added dots is used in a non-data area to be occurred on both sides of a screen.

5           11. A stereoscopic image processing method according to any one of claims 6 to 9, wherein black data is used in a non-data area to be occurred on both sides of a screen.

12. A stereoscopic image processing method according to any one of claims 6 to 9, wherein in a non-data area to be occurred on both sides of a  
10 screen, copied data of the dots having the same viewpoint adjacent to the non-data area is used.

13. A stereoscopic image processing method according to any one of claim 1 or 2, wherein a stereoscopic vision-use image that also has a parallax in a vertical direction is generated.

15           14. A stereoscopic image display provided with a screen on which an image is displayed, and a separating means for separating a position capable of observing dots of each viewpoint image, wherein

when the image obtained by the stereoscopic image processing method according to any one of claims 1 to 13 is displayed on the screen, an  
20 aspect ratio of a screen dot pitch is set so that an aspect ratio of a pitch of a displayed pixel group on the screen is rendered 1:1 to approximately 1:1.

15. A stereoscopic image display according to claim 14, configured such that if the number of viewpoints is L, and the number of dots constituting one pixel is k, a pitch of displayed dots is set to k (horizontal):L  
25 (vertical), and an aspect ratio of a displayed pixel group is rendered horizontal:vertical equal (=) to 1:1.

16. A stereoscopic image display provided with a screen on which an image is displayed, and a separating means for separating a position capable of observing dots of each viewpoint image, configured such that a pitch of displayed dots is  $k$ , the number of viewpoints is  $L$ , an aspect ratio of a screen dot pitch is set to  $kL:1$  to approximately  $kL:1$ , an image in which dot data of each viewpoint image is set in sequence in a horizontal direction is supplied so as to display an image, and an aspect ratio of a pitch of a displayed pixel group on a screen is rendered  $1:1$  to approximately  $1:1$ .

17. A stereoscopic image display according to any one of claims 1 to 15, wherein a red color-use dot row, a green color-use dot row, and a blue color-use dot row are arranged in sequence in a vertical direction.

18. A stereoscopic image display according to claim 16, wherein the same color dots of which number corresponds to the number of viewpoint images are arranged successively.